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CLEMENT, MICHELLE RENEE	
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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 10/677,649
Filing Date: September 30, 2003
Appellant(s): LACY ET AL.

Gerhard W. Thielman
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 10/25/06 appealing from the Office action mailed 3/20/06.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

4,492,166	PURCELL	1-1985
4,982,668	BENDER	1-1991

(9) Grounds of Rejection

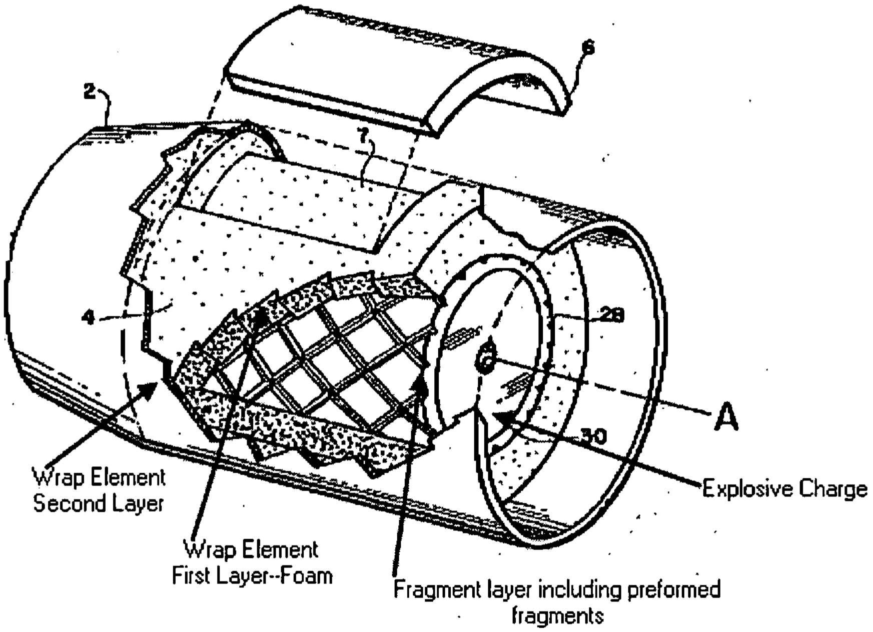
The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-4, 19 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Purcell (US Patent # 4,492,166) in view of Bender et al. (US Patent # 4,982,668). Purcell discloses a cylindrically shaped ordnance device comprising an explosive charge (references (30 and 6), a fragment layer (reference 28) including a plurality of preformed failure prone fragments, and a wrap element having a first layer (reference 4) and a second layer (reference 2), the first layer disposed between the second layer and the fragment layer, the first layer composed of a compressible foam material of lower density than the second layer which is metal. The fragment layer comprises a plurality of preformed inert fragments interspersed with the preformed failure prone fragments.



Although Purcell does not expressly disclose a metal buffer element disposed between the explosive charge and the fragment layer, Bender et al. does. Bender et al. teaches a cylindrically shaped ordnance device comprising an explosive charge and a fragment layer including a plurality of preformed failure prone fragments wherein a metal sheet (i.e. buffer element) (reference 8) separates the explosive charge from the fragments (column 1, lines 64-66). One of the stated purposes of the plate is to reliably contain the explosion and gases until the fragments can be simultaneously ejected do to a build up of pressure (column 2, lines 3-6).

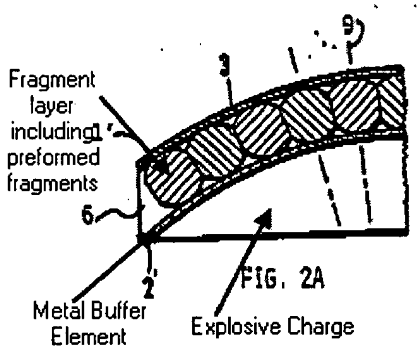


FIG. 2A

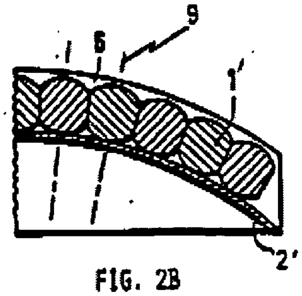


FIG. 2B

Purcell and Bender et al. are analogous art because they are from the same field of endeavor: fragmenting ordnance. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the metal liner element as taught by Bender et al. with the ordnance device as taught by Purcell. The suggestion/motivation for doing so would have been to obtain a device that had more reliable ejection of the fragments as suggested by Bender et al. Purcell and Bender et al. disclose the claimed invention except for the metal liner (buffer element) explicitly being a copper material. It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the liner of copper, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice and copper is desirable in the art of ordnance devices for its strength while being lightweight. *In re Leshin*, 125 USPQ 416. The [a) statements of intended use or field of use, b)"adapted to", "adapted for" or "**configured to**" clauses, c) "wherein" clauses, or d) "whereby"] clauses are essentially method limitations or statements of intended or desired use. Thus, these claims as well as other statements of intended use do not serve to patentably distinguish the claimed structure over that of the reference. See In re Pearson, 181 USPQ 641; In re Yanush, 177 USPQ 705; In re Finsterwalder, 168 USPQ 530; In re Casey, 512 USPQ 235; In re Otto, 136 USPQ 458; Ex parte Masham, 2 USPQ 2nd 1647.

See MPEP § 2114 which states:

> A claim containing a "recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from the prior art apparatus" if the prior art apparatus teaches all the structural limitations of the claim. Ex parte Masham, 2 USPQ 2nd 1647
>
> Claims directed to apparatus must be distinguished from the prior art in terms of structure rather than functions. In re Danly, 120 USPQ 528, 531.

Apparatus claims cover what a device is not what a device does. Hewlett-Packard Co. v. Bausch & Lomb Inc., 15 USPQ2d 1525, 1528.

As set forth in MPEP § 2115, a recitation in a claim to the material or article worked upon does not serve to limit an apparatus claim.

Purcell and Bender et al. discloses the claimed invention except for the specific dimensions including the width-to-charge-diameter, the thickness of the liner element, and the diameter of the explosive charge. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the specific dimensions, since it has been held that where the only difference between the prior art and the claims was a recitation of relative dimensions of the claimed device and a device having the claimed relative dimensions would not perform differently than the prior art device the claimed device was not patentably distinct from the prior art device. *Gardner v. TEC Systems, Inc.*, 220 USPQ 777 and MPEP 2144.04 (IV). Furthermore, where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

(10) Response to Argument

Appellant's arguments amount to a general allegation that the claims define a patentable invention. Appellant attempts to distinguish Purcell by listing the additional structure that is not included or required by Appellant's invention. However, it is noted that the combination of Purcell and Bender et al. teach the disclosed invention as claimed. The fact that it discloses additional structure not claimed is irrelevant. As shown above Purcell discloses an ordnance device, which is defined as any military material such as weapons, ammunition or artillery, comprising an explosive charge, a fragment layer including preformed failure prone fragments and a wrap element having a first and second layer, the first layer of foam, the second layer of metal. It is irrelevant that Purcell discloses additional structure. Purcell does however fail to disclose a metal buffer element disposed between the explosive charge and the fragment layer, Bender et al. does. Bender et al. teaches an ordnance device comprising an explosive charge, a fragment layer including preformed failure prone fragments, a metal buffer element disposed between the explosive charge and the fragment layer, and in some embodiments Bender et al. further teaches an additional wrap element (i.e. outer shell casing (3) as seen in the embodiment of Figure 2A) disposed on the opposite side of the fragment layer from the buffer element. Bender et al. teaches several different embodiments in order to optimize the results of placing a buffer/metal element between the explosive charge and the fragment layer. It is this teaching of Bender et al. that in combination with the ordnance device disclosed by Purcell that is relied upon for the rejections of the presently claimed ordnance device. Appellant has misinterpreted the rejection and the combination of Purcell and Bender et al. in stating that "Bender et al. teaches away from incorporating its tray 2' with Purcell between its fragmentation case 28 and foam attenuator" (Appeal Brief page 9, ¶ 3). It is not suggested that the tray 2' (i.e. metal buffer) would be placed between the fragmentation case and the foam attenuator of Purcell but rather that it would be placed between the explosive charge and the fragmentation layer as suggested by Bender et al. In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir.

1992). In this case, Bender et al. suggested several different embodiments or trials of placing a metal element between the explosive charge and the fragmentation layer. The experimentation of Bender et al. suggests that different embodiments will have different effects, it is this experimentation that suggests a motivation to combine the teachings of Bender et al. to include a metal element between the explosive charge and the fragmentation layer that would lead one of ordinary skill in the art to include such an element with the ordnance device as disclosed by Purcell. Appellant further appear to argue desired outcome limitations and suggests that the device of Purcell as modified by Bender et al. does not perform in the claimed manner. It is noted that a recitation of the intended use of the claimed invention must result in a **structural difference** between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. It is noted that the prior art contains all the elements as claimed and structured as claimed. It is further noted that the metal element will inherently attenuate, dilute, the incident shock communicated into the fragment layer. Appellant has not disclosed any special form, shape, materials or construction that would change the inherent abilities of such an element and has not disclosed anything beyond the claimed structure that would differentiate the prior art from that of the present application such that the present invention is "configured to" perform in a manner that the prior art would not. Although appellant might intend or desire the current device to attenuate the incident shock to a higher degree, such intent or desire does not patentably distinguish the present claims from that of the prior device in that the prior art discloses all the structure of the present claims. The same can be said regarding the first layer of the wrap element. Purcell discloses the first layer composed of a compressible foam material. The foam material inherently has a lower density than the second layer, which is metal (same as disclosed by the current application). The application has not disclosed that it is anything other than this combination that constitutes the "configured to" language of the claims. It is inherent that a shock will be communicated into the fragment layer through the foam layer and that the foam layer will dilute, or attenuate, the incident shock.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

ICHELLE CLEMENT
RIMARY EXAMINER

Michelle R. Clement

Conferees:

Meredith Petravick

Stephen Johnson